*Please provide the following information, and submit to the NOAA DM Plan Repository.*

**Reference to Master DM Plan (if applicable)**

*As stated in Section IV, Requirement 1.3, DM Plans may be hierarchical. If this DM Plan inherits provisions from a higher-level DM Plan already submitted to the Repository, then this more-specific Plan only needs to provide information that differs from what was provided in the Master DM Plan.*

URL of higher-level DM Plan (if any) as submitted to DM Plan Repository:

**1. General Description of Data to be Managed**

**1.1. Name of the Data, data collection Project, or data-producing Program:**
Airborne Gravity: NGS' Gravity data for AS09 (2018)

**1.2. Summary description of the data:**
Airborne gravity data for coastal Alaska collected in 2018 over 2 surveys. This data set is part of the Gravity for the Re-definition of the American Vertical Datum (GRAV-D) project initiated by NOAA's National Geodetic Survey to collect and monitor gravity data suitable for the re-definition of the vertical datum for at least the United States and territories. The data is available at http://www.ngs.noaa.gov/GRAV-D/data_as09.shtml in ASCII text format.

**1.3. Is this a one-time data collection, or an ongoing series of measurements?**
One-time data collection

**1.4. Actual or planned temporal coverage of the data:**
2018-04 to 2018-07

**1.5. Actual or planned geographic coverage of the data:**
W: -167.75, E: -158, N: 57, S: 52.5

**1.6. Type(s) of data:**
*(e.g., digital numeric data, imagery, photographs, video, audio, database, tabular data, etc.)*
Table (digital)

**1.7. Data collection method(s):**
*(e.g., satellite, airplane, unmanned aerial system, radar, weather station, moored buoy, research vessel, autonomous underwater vehicle, animal tagging, manual surveys, enforcement activities, numerical model, etc.)*
Instrument: NovAtel SPAN (GNSS Receiver) or Applanix POS AV 510, NovAtel DL-V3 or DL-4 Plus (GNSS Receiver), NovAtel SPAN (IMU), Micro-g LaCoste TAGS (Relative Gravimeter), Micro-g LaCoste A10 (Absolute Gravimeter), LaCoste and Romberg G-meter or Sintrex CG-6 (Relative Gravimeter for gradient)
Platform: King Air
Physical Collection / Fishing Gear: N/A

**1.8. If data are from a NOAA Observing System of Record, indicate name of system:**

**1.8.1. If data are from another observing system, please specify:**

**2. Point of Contact for this Data Management Plan (author or maintainer)**

**2.1. Name:**
GRAV-D Project Manager

**2.2. Title:**
Metadata Contact

**2.3. Affiliation or facility:**

**2.4. E-mail address:**
NGS.GRAVD@noaa.gov

**2.5. Phone number:**
240-533-9641

**3. Responsible Party for Data Management**
*Program Managers, or their designee, shall be responsible for assuring the proper management of the data produced by their Program. Please indicate the responsible party below.*

**3.1. Name:**
GRAV-D Project Manager

**3.2. Title:**
Data Steward

**4. Resources**
*Programs must identify resources within their own budget for managing the data they produce.*

**4.1. Have resources for management of these data been identified?**

**4.2. Approximate percentage of the budget for these data devoted to data management ( specify percentage or "unknown"):**

**5. Data Lineage and Quality**
*NOAA has issued Information Quality Guidelines for ensuring and maximizing the quality, objectivity, utility, and integrity of information which it disseminates.*

**5.1. Processing workflow of the data from collection or acquisition to making it publicly accessible**
*(describe or provide URL of description):*

Process Steps:

- GPS data processed using NovAtel Waypoint Inertial Explorer 8.7 from GRAV-D surveys AK18-1 and AK18-2. (Citation: Raw GPS Data from GRAV-D surveys AK18-1 and AK18-2.)
- Gravity data from GRAV-D surveys AK18-1 and AK18-2 processed using NGS software Newton v1.4 (Citation: Raw Gravity Data from GRAV-D surveys AK18-1 and AK18-2.)

**5.1.1. If data at different stages of the workflow, or products derived from these data, are subject to a separate data management plan, provide reference to other plan:**

**5.2. Quality control procedures employed (describe or provide URL of description):**

Data are processed shortly after flying to ensure that all instruments are working and data quality is acceptable. Field personnel perform data checks at least once per day to ensure all GPS receivers, the gravimeter, and IMUs are working up to standard. The field personnel also process GPS and gravity data, mapping the preliminary gravity product, to check quality. Additional quality control plots are built into the GPS and gravity processing software packages for advanced data analysis in the field.

After processing data are compared to an existing geoid model. In addition processed gravity is compared at common points from several flight lines crossing the survey lines to verify consistent gravity measurements in the same location.. More detailed information can be found at http://www.ngs.noaa.gov/GRAV-D/data_as09.shtml.

## 6. Data Documentation

*The EDMC Data Documentation Procedural Directive requires that NOAA data be well documented, specifies the use of ISO 19115 and related standards for documentation of new data, and provides links to resources and tools for metadata creation and validation.*

**6.1. Does metadata comply with EDMC Data Documentation directive?**

No

**6.1.1. If metadata are non-existent or non-compliant, please explain:**

Missing/invalid information:

- 4.1. Have resources for management of these data been identified?
- 4.2. Approximate percentage of the budget for these data devoted to data management
- 7.1. Do these data comply with the Data Access directive?
- 7.1.1. If data are not available or has limitations, has a Waiver been filed?
- 7.1.2. If there are limitations to data access, describe how data are protected
- 7.2. Name of organization of facility providing data access
- 7.2.1. If data hosting service is needed, please indicate
- 7.4. Approximate delay between data collection and dissemination
- 8.1. Actual or planned long-term data archive location

- 8.3. Approximate delay between data collection and submission to an archive facility
- 8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?

**6.2. Name of organization or facility providing metadata hosting:**
NMFS Office of Science and Technology

**6.2.1. If service is needed for metadata hosting, please indicate:**

**6.3. URL of metadata folder or data catalog, if known:**
https://www.fisheries.noaa.gov/inport/item/54216

**6.4. Process for producing and maintaining metadata**
*(describe or provide URL of description):*
Metadata produced and maintained in accordance with the NOAA Data Documentation Procedural Directive: https://nosc.noaa.gov/EDMC/DAARWG/docs/EDMC_PD-Data_Documentation_v1.pdf

**7. Data Access**
*NAO 212-15 states that access to environmental data may only be restricted when distribution is explicitly limited by law, regulation, policy (such as those applicable to personally identifiable information or protected critical infrastructure information or proprietary trade information) or by security requirements. The EDMC Data Access Procedural Directive contains specific guidance, recommends the use of open-standard, interoperable, non-proprietary web services, provides information about resources and tools to enable data access, and includes a Waiver to be submitted to justify any approach other than full, unrestricted public access.*

**7.1. Do these data comply with the Data Access directive?**

**7.1.1. If the data are not to be made available to the public at all, or with limitations, has a Waiver (Appendix A of Data Access directive) been filed?**

**7.1.2. If there are limitations to public data access, describe how data are protected from unauthorized access or disclosure:**

**7.2. Name of organization of facility providing data access:**

**7.2.1. If data hosting service is needed, please indicate:**

**7.2.2. URL of data access service, if known:**
http://www.ngs.noaa.gov/GRAV-D/data_as09.shtml

**7.3. Data access methods or services offered:**

https://www.ngs.noaa.gov/grav-d/data_products.shtml

**7.4. Approximate delay between data collection and dissemination:**

**7.4.1. If delay is longer than latency of automated processing, indicate under what authority data access is delayed:**

## 8. Data Preservation and Protection

*The NOAA Procedure for Scientific Records Appraisal and Archive Approval describes how to identify, appraise and decide what scientific records are to be preserved in a NOAA archive.*

**8.1. Actual or planned long-term data archive location:**
*(Specify NCEI-MD, NCEI-CO, NCEI-NC, NCEI-MS, World Data Center (WDC) facility, Other, To Be Determined, Unable to Archive, or No Archiving Intended)*

**8.1.1. If World Data Center or Other, specify:**

**8.1.2. If To Be Determined, Unable to Archive or No Archiving Intended, explain:**

**8.2. Data storage facility prior to being sent to an archive facility (if any):**
National Geodetic Survey - Silver Spring, MD

**8.3. Approximate delay between data collection and submission to an archive facility:**

**8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?**
*Discuss data back-up, disaster recovery/contingency planning, and off-site data storage relevant to the data collection*

## 9. Additional Line Office or Staff Office Questions

*Line and Staff Offices may extend this template by inserting additional questions in this section.*